

## Abstract

The flow sensor includes: A measuring tube for the conveying of an electrically conductive fluid; a magnetic circuit arrangement arranged on the measuring tube for producing and guiding a magnetic field, which induces an electric field in the flowing fluid; and measuring electrodes for the tapping of a voltage of the electric field. The measuring tube includes a carrier tube and liner, especially a tubular liner, of insulating material, accommodated in a lumen of the carrier tube. Preferably, a support skeleton serving for stabilization is embedded in the liner. The carrier tube additionally has at least a first groove formed in a wall of the carrier tube and open towards the lumen of the carrier tube, whereby, on the one hand, the tendency of the liner and/or of the possibly present support skeleton towards crack formation upon temperature changes, especially in the case of cooling, can be considerably reduced, and, on the other hand, a rotation or displacement of the support skeleton in the carrier tube, especially in the case of possible material shrinkage, can be effectively prevented.